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January 19, 2023

To: Chelsea Morris, SAM coordinator

Washington State Department of Ecology, Olympia, WA

From: Marlena Milosevich

Natural Resource Specialist III, Clark County Public Works, Vancouver, WA

Subject: Deliverable D1.6: Semi-annual progress report

1. General Information

| Contract Agreement Number: | C2000179 |
|----------------------------|---|
| Project Title: | Status and Trends Monitoring of Urban Streams in Clark and Cowlitz Counties in the Lower Columbia River Region (LCUS) |
| Organization: | Clark County Public Works Clean Water Division (CWD) |
| CWD Project Manager: | Chad Hoxeng, CWD Natural Resource Specialist III |
| Ecology Project Manager: | Chelsea Morris, Stormwater Action Monitoring (SAM) Scientist |
| Reporting Period: | 2022 Q3 and Q4 (July through December) |
| Date Form was Completed: | 19January2023 |

2. Task Achievements (This reporting period)

Task 1: Project Management

| Percent of Task Completed: | 13% this period (63% Cumulative Completed) \$10,889 of budget used (\$35,643 of \$32,328.00 of budget used total) |
|----------------------------|--|
| Deliverable: | D1.4: Semi-annual progress report |
| Achievements: | The 2022 Q1 and Q2 D1.5: semi-annual progress report with target date July 31, 2022, was submitted to and accepted by Ecology. The project and budget were managed. Field, laboratory, and reporting tasks were coordinated. |



Task 2: Station Set Up

| Percent of Task Completed: | 17% this period (85% Cumulative Completed) |
|----------------------------|---|
| | \$3,376 of budget used (\$85,749 of \$109,096.00 budget used |
| | total) |
| Deliverable: | D2.5: Confirmation email for equipment installation at three status |
| | monitoring stations; target September 30, 2022 |
| Achievements: | D2.5: Confirmation email for equipment installation at three status |
| | monitoring stations was submitted to and accepted by Ecology. |
| | Three status sites are installed and collecting data for WY2023. |

Task 3: Continuous Datalogger Operation and Field Data Collection

| Percent of Task Completed: | 17% (66% Cumulative Completed) \$42,807 of budget used (\$124,344 of \$191,402 budget used total) |
|----------------------------|--|
| Deliverable: | D3.2: Email for monitoring completeness WY2022, confirming submission of the data collection event (DCE) file for each site compiled by the WHM e-forms and all required data and sample collection |
| Achievements: | D3.2: Email for monitoring completeness WY2022, confirming submission of the data collection event (DCE) file for each site compiled by the WHM e-forms and all required data and sample collection was submitted to Ecology. A total of eight e-forms were sent to Ecology. This deliverable was also met by operating and maintaining continuous monitoring equipment and performing field data collection per the Ecology-approved LCUS QAPP. Please see 3. Challenges and Issues for more information. |

Task 4: Data Management

| Percent of Task Completed: | 2.7% (57% Cumulative Completed of D4.1; 33% Cumulative |
|----------------------------|--|
| | Completed for Task 4) |
| | \$9,850 of budget used (\$42,285 of \$63,721 budget used) |
| Deliverable: | D4.1.11: Upload continuous data to Aquarius, and send an excel file with graphs to the Ecology project manager (Data through July 2022) |
| | D4.1.12: Upload continuous data to Aquarius, and send an excel file with graphs to the Ecology project manager (Data through September 2022) |
| | D4.1.13: Upload continuous data to Aquarius, and send an excel file with graphs to the Ecology project manager (Data October 1st 2022 through November. |
| Achievements: | On target to meet deliverable by performing data management and submittal per the Ecology-approved QAPP. D4.1.11, D4.1.12, and D4.1.13 (Three of 22 targeted bi-monthly, 13 cumulative) excel files with graphs have been completed and accepted by Ecology. |

Task 5: Data Analysis and Annual Reporting

| Percent of Task Completed: | 14% (42% Cumulative Completed) \$6,069 of budget used (\$33,448 of \$73,131 budget used) |
|----------------------------|---|
| Deliverable: | D5.3 Annual report (WY2021) Final |
| Achievements: | Deliverable D5.3 was submitted to Ecology and accepted. |

3. Challenges and Issues

There were a few challenges accomplishing Task 3: field data collection. Throughout the six-month time period (July through December 2022).

Another challenge was in meeting target dates for Task 5 Deliverable D5.3 Annual report final (WY2021). BIBI data was not received until after the target date for Deliverable D5.2 Annual report (WY2021) draft. This data is integral to the report and thus the report draft could not be completed without it. Habitat metric results were also delayed and a very important part of the annual report. The annual report draft has been completed (D5.2) and submitted to Ecology. Once Ecology approved of the draft annual report the final annual report (D5.3) was submitted and accepted.

After the November 2022 field visits, Clark County staff realized that the conductivity meter used to check deployed conductivity measurements was reading inaccurately. A follow up visit with a rechecked conductivity meter, verified that deployed conductivity sensors were and are reading accurately. This incidence affects drift corrections for fouling for the time period of the initial field visit and cleaning in November 2022 back to the last field visit in late September of 2022. Best professional judgment used by Marlena Milosevich and knowledge of the continuous sites will be used to apply drift corrections to these data. Low flows during the summer months also lead to sediment accumulations of continuous conductivity sensors. Greater drift corrections will need to be applied to the finalized data set.

4. General Comments

Project is on task to meet IAA deliverables.